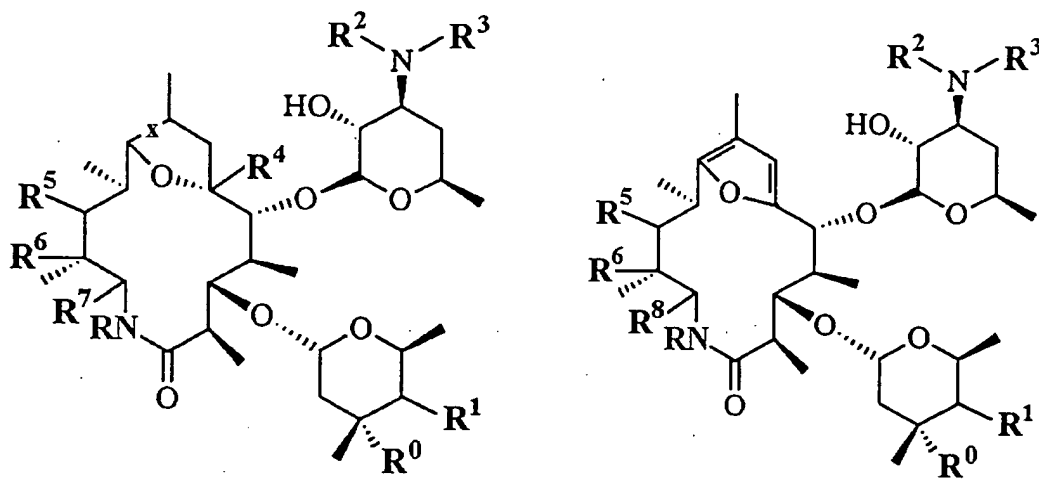


What is claimed is:

1. A compound of the structure



or

- 5 wherein:

R is hydrogen, substituted C₁-C₁₀ alkyl, unsubstituted C₁-C₁₀ alkyl, substituted C₂-C₁₀ alkenyl, unsubstituted C₂-C₁₀ alkenyl, substituted C₂-C₁₀ alkynyl, unsubstituted C₂-C₁₀ alkynyl, substituted aryl, unsubstituted aryl, substituted alkylaryl, unsubstituted alkylaryl, substituted alkenylaryl, unsubstituted alkenylaryl, substituted alkynylaryl, or unsubstituted alkynylaryl;

R⁰ is hydroxyl or methoxy;

R¹ is selected from the group consisting of hydrogen, hydroxyl, halide, NH₂, OR⁹,

OCR^9 , $\text{OCNR}^{10}\text{R}^{11}$, NCR^9 , and $\text{NCNR}^{10}\text{R}^{11}$ where R⁹ is substituted C₁-C₁₀ alkyl,

unsubstituted C₁-C₁₀ alkyl, substituted C₂-C₁₀ alkenyl, unsubstituted C₂-C₁₀ alkenyl,

- 15 substituted C₂-C₁₀ alkynyl, unsubstituted C₂-C₁₀ alkynyl, substituted aryl, unsubstituted aryl, substituted alkylaryl, unsubstituted alkylaryl, substituted alkenylaryl, unsubstituted alkenylaryl, substituted alkynylaryl, or unsubstituted alkynylaryl, and R¹⁰ and R¹¹ are each independently hydrogen, substituted C₁-C₁₀ alkyl, unsubstituted C₁-C₁₀ alkyl, substituted C₂-C₁₀ alkenyl, unsubstituted C₂-C₁₀ alkenyl, substituted C₂-C₁₀ alkynyl, unsubstituted C₂-C₁₀ alkynyl, substituted aryl, unsubstituted aryl, substituted alkylaryl, unsubstituted alkylaryl,
- 20

substituted alkenylaryl, unsubstituted alkenylaryl, substituted alkynylaryl, or unsubstituted alkynylaryl;

R^2 and R^3 are each independently selected from the group consisting of hydrogen, substituted C_1 - C_{10} alkyl, unsubstituted C_1 - C_{10} alkyl, substituted C_2 - C_{10} alkenyl, unsubstituted C_2 - C_{10} alkenyl, substituted C_2 - C_{10} alkynyl, unsubstituted C_2 - C_{10} alkynyl, substituted aryl, unsubstituted aryl, substituted alkylaryl, unsubstituted alkylaryl, substituted alkenylaryl, unsubstituted alkenylaryl, substituted alkynylaryl, and unsubstituted alkynylaryl, or R^2 and R^3 together form a cycloalkyl or an aryl moiety;

R^4 is hydrogen or methyl;

R^5 is hydroxyl or oxo;

R^6 is hydrogen, hydroxyl, or OR^{12} where R^{12} is substituted C_1 - C_{10} alkyl, unsubstituted C_1 - C_{10} alkyl, substituted C_2 - C_{10} alkenyl, unsubstituted C_2 - C_{10} alkenyl, substituted C_2 - C_{10} alkynyl, or unsubstituted C_2 - C_{10} alkynyl;

R^7 is methyl, unsubstituted C_3 - C_{10} alkyl, substituted C_1 - C_{10} alkyl, substituted C_2 - C_{10} alkenyl, unsubstituted C_2 - C_{10} alkenyl, substituted C_2 - C_{10} alkynyl, unsubstituted C_2 - C_{10} alkynyl, substituted alkylaryl, unsubstituted alkylaryl, substituted alkenylaryl, unsubstituted alkenylaryl, substituted alkynylaryl, or unsubstituted alkynylaryl;

R^8 is unsubstituted C_1 - C_{10} alkyl, substituted C_1 - C_{10} alkyl, substituted C_2 - C_{10} alkenyl, unsubstituted C_2 - C_{10} alkenyl, substituted C_2 - C_{10} alkynyl, unsubstituted C_2 - C_{10} alkynyl, substituted alkylaryl, unsubstituted alkylaryl, substituted alkenylaryl, unsubstituted alkenylaryl, substituted alkynylaryl, or unsubstituted alkynylaryl; and,

x is a single or a double bond.

2. The compound as in claim 1 wherein:

R is hydrogen, methyl, ethyl, propyl, isopropyl, phenyl or benzyl; R^0 is hydroxyl or methoxy;

R^1 is hydrogen or hydroxyl;

R^2 is methyl;

R^3 is methyl, ethyl, propyl, isopropyl, butyl, isobutyl, secbutyl or tertbutyl;

R^4 is methyl;

R^5 is hydroxyl;

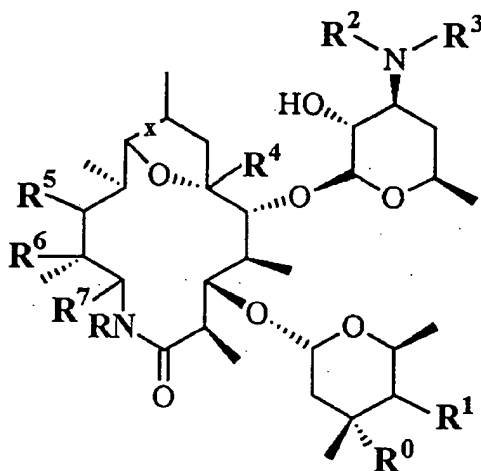
R^6 is hydroxyl or methoxy;

R^7 is methyl, vinyl, propyl, isobutyl, pentyl, prop-2-enyl, propargyl, but-3-enyl, 2-azidoethyl, 2-fluoroethyl, 2-chloroethyl, cyclohexyl, phenyl, or benzyl;

R^8 is methyl, ethyl vinyl, propyl, isobutyl, pentyl, prop-2-enyl, propargyl, but-3-enyl, 2-azidoethyl, 2-fluoroethyl, 2-chloroethyl, cyclohexyl, phenyl, or benzyl; and,

x is a single or a double bond.

3. The compound as in claim 1 of the formula



wherein

R is hydrogen, substituted C_1 - C_5 alkyl, unsubstituted C_1 - C_5 alkyl, substituted aryl, unsubstituted aryl, substituted alkylaryl or unsubstituted alkylaryl;

R^0 is hydroxyl or methoxy;

R^1 is hydrogen or hydroxyl;

R^2 and R^3 are each independently substituted C_1 - C_5 alkyl, unsubstituted C_1 - C_5 alkyl, phenyl or benzyl;

R^4 is methyl;

R^5 is hydroxyl or oxo;

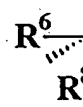
R^6 is hydrogen, hydroxyl, or OR^{12} wherein R^{12} is substituted C_1 - C_5 alkyl, or unsubstituted C_1 - C_5 alkyl;

Trial	Control (n = 10)	MCI (n = 10)	AD (n = 10)
1	95	85	75
2	95	85	75
3	95	80	70
4	95	78	68
5	95	75	65

5

4.

5.



10

R

15

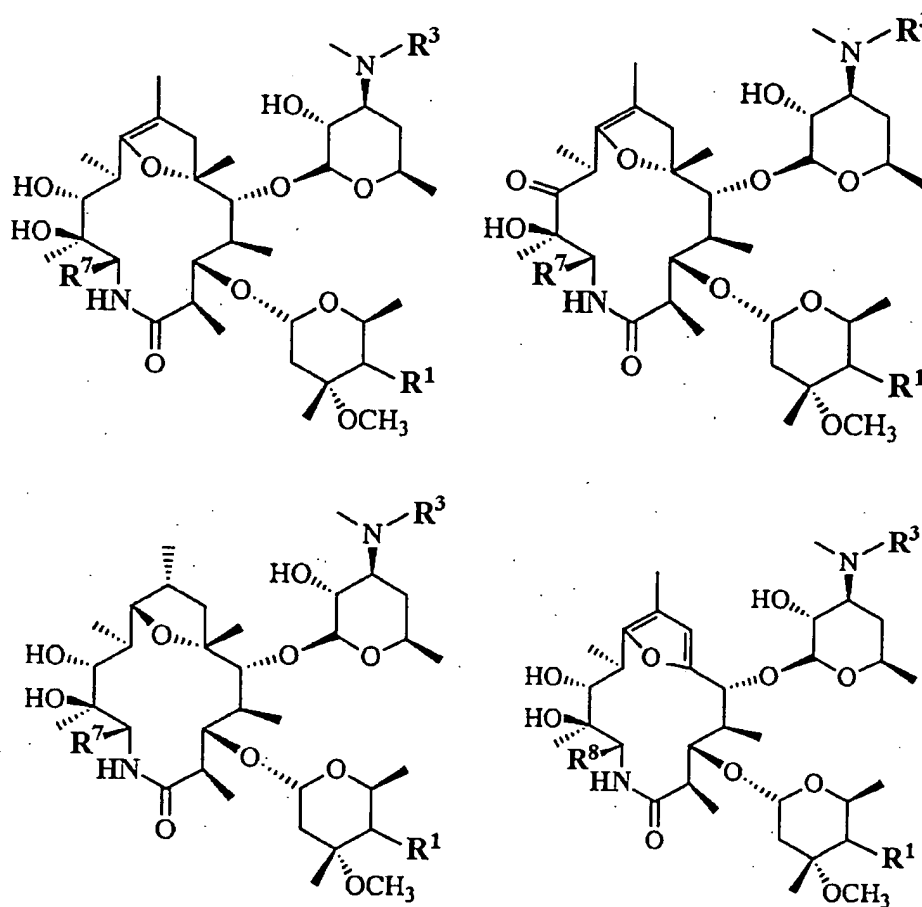
R

R

20

substituted aryl, unsubstituted aryl, substituted alkylaryl unsubstituted alkylaryl, substituted alkenylaryl or unsubstituted alkenylaryl alkenylaryl.

6. A compound of the structure



or

wherein

R is hydrogen, methyl, ethyl, propyl, isopropyl, phenyl or benzyl; R⁰ is hydroxyl or methoxy;

10 R¹ is hydrogen or hydroxyl;

R³ is methyl, ethyl, propyl, isopropyl, butyl, isobutyl, secbutyl or tertbutyl;

R⁷ is methyl, vinyl, propyl, isobutyl, pentyl, prop-2-enyl, propargyl, but-3-enyl, 2-azidoethyl, 2-fluoroethyl, 2-chloroethyl, cyclohexyl, phenyl, or benzyl;

R^8 is methyl, ethyl vinyl, propyl, isobutyl, pentyl, prop-2-enyl, propargyl, but-3-enyl, 2-azidoethyl, 2-fluoroethyl, 2-chloroethyl, cyclohexyl, phenyl, or benzyl.

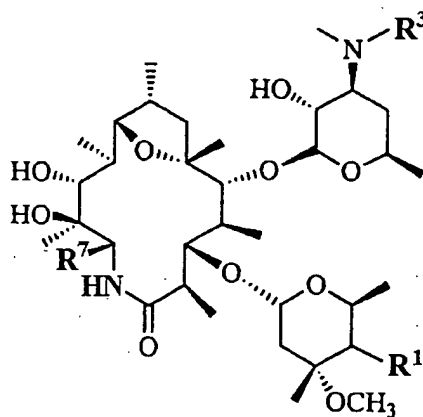
7. The compound as in claim 6 wherein

5 R^3 is methyl, ethyl, or isopropyl;

R^7 is propyl or fluoroethyl; and

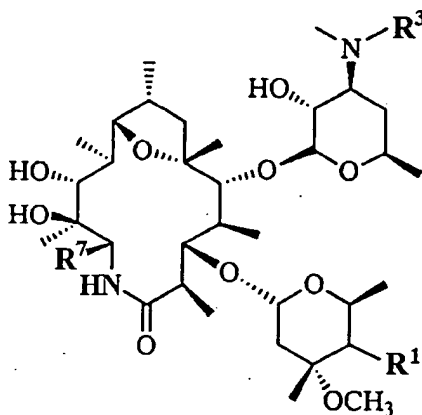
R^8 is ethyl, propyl or fluoroethyl.

8. The compound as in claim 7 of the structure



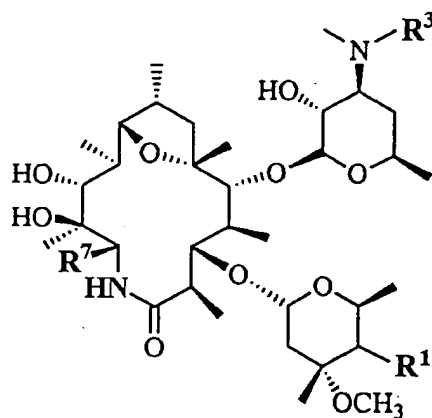
10 wherein R^1 is hydrogen, R^3 is ethyl and R^7 is propyl.

9. The compound as in claim 7 of the structure



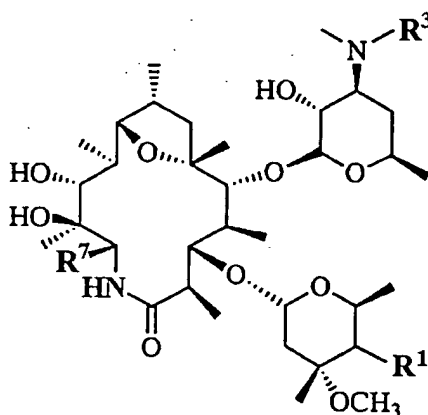
15 wherein R^1 is hydroxyl, R^3 is ethyl and R^7 is propyl.

10. The compound as in claim 7 of the structure



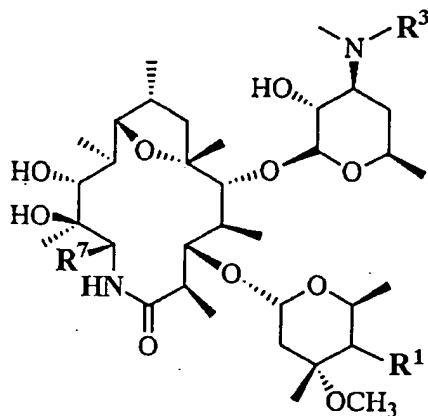
wherein R^1 is hydrogen, R^3 is isopropyl and R^7 is propyl.

- 5 11. The compound as in claim 7 of the structure



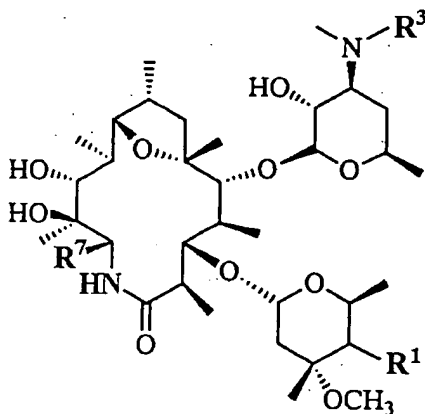
wherein R^1 is hydroxyl, R^3 is isopropyl and R^7 is propyl.

12. The compound as in claim 7 of the structure



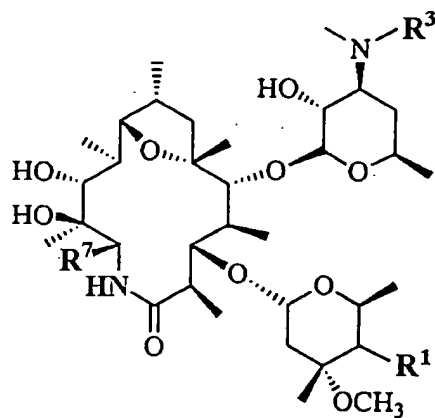
wherein R¹ is hydrogen, R³ is ethyl and R⁷ is fluoroethyl.

- 5 13. The compound as in claim 7 of the structure



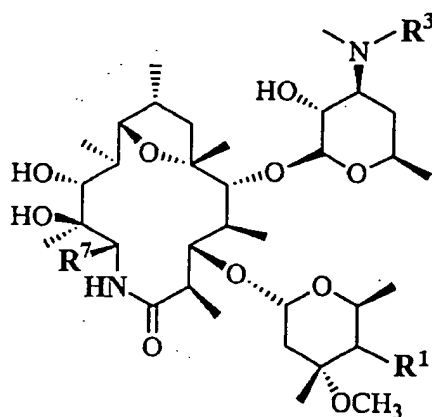
wherein R¹ is hydroxyl, R³ is ethyl and R⁷ is fluoroethyl.

14. The compound as in claim 7 of the structure



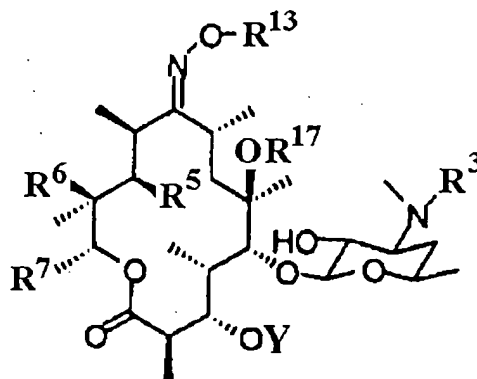
wherein R^1 is hydrogen, R^3 is isopropyl and R^7 is fluoroethyl.

- 5 15. The compound as in claim 7 of the structure



wherein R^1 is hydroxyl, R^3 is isopropyl and R^7 is fluoroethyl.

16. A compound of the structure



wherein

Y is hydrogen, substituted C₁-C₁₀ alkyl, unsubstituted C₁-C₁₀ alkyl, substituted C₂-C₁₀ alkenyl, unsubstituted C₂-C₁₀ alkenyl, substituted C₂-C₁₀ alkynyl, unsubstituted C₂-C₁₀ alkynyl, substituted aryl, unsubstituted aryl, substituted alkylaryl, unsubstituted alkylaryl, substituted alkenylaryl, unsubstituted alkenylaryl, substituted alkynylaryl, unsubstituted alkynylaryl, unsubstituted cladinose, or substituted cladinose;

R³ is hydrogen, substituted C₁-C₁₀ alkyl, unsubstituted C₁-C₁₀ alkyl, substituted C₂-C₁₀ alkenyl, unsubstituted C₂-C₁₀ alkenyl, substituted C₂-C₁₀ alkynyl, unsubstituted C₂-C₁₀ alkynyl, substituted aryl, unsubstituted aryl, substituted alkylaryl, unsubstituted alkylaryl, substituted alkenylaryl, unsubstituted alkenylaryl, substituted alkynylaryl, or unsubstituted alkynylaryl;

R⁵ is hydroxyl or oxo;

R⁶ is hydrogen, hydroxyl, or OR¹² where R¹² is substituted C₁-C₁₀ alkyl, unsubstituted C₁-C₁₀ alkyl, substituted C₂-C₁₀ alkenyl, unsubstituted C₂-C₁₀ alkenyl, substituted C₂-C₁₀ alkynyl, or unsubstituted C₂-C₁₀ alkynyl;

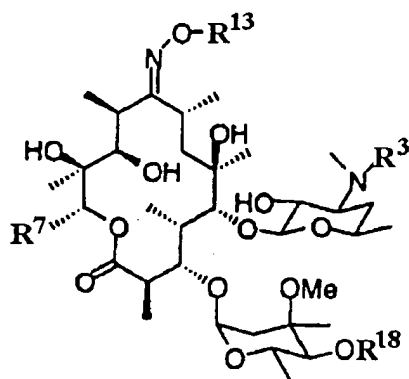
R⁷ is methyl, unsubstituted C₃-C₁₀ alkyl, substituted C₁-C₁₀ alkyl, substituted C₂-C₁₀ alkenyl, unsubstituted C₂-C₁₀ alkenyl, substituted C₂-C₁₀ alkynyl, unsubstituted C₂-C₁₀ alkynyl, substituted alkylaryl, unsubstituted alkylaryl, substituted alkenylaryl, unsubstituted alkenylaryl, substituted alkynylaryl, or unsubstituted alkynylaryl;

R¹³ is hydrogen, unsubstituted C₁-C₁₀ alkyl, substituted C₁-C₁₀ alkyl, substituted C₂-C₁₀ alkenyl, unsubstituted C₂-C₁₀ alkenyl, substituted C₂-C₁₀ alkynyl, unsubstituted C₂-C₁₀ alkynyl,

alkynyl, substituted alkylaryl, unsubstituted alkylaryl, substituted alkenylaryl, unsubstituted alkenylaryl, substituted alkynylaryl, or unsubstituted alkynylaryl; and,

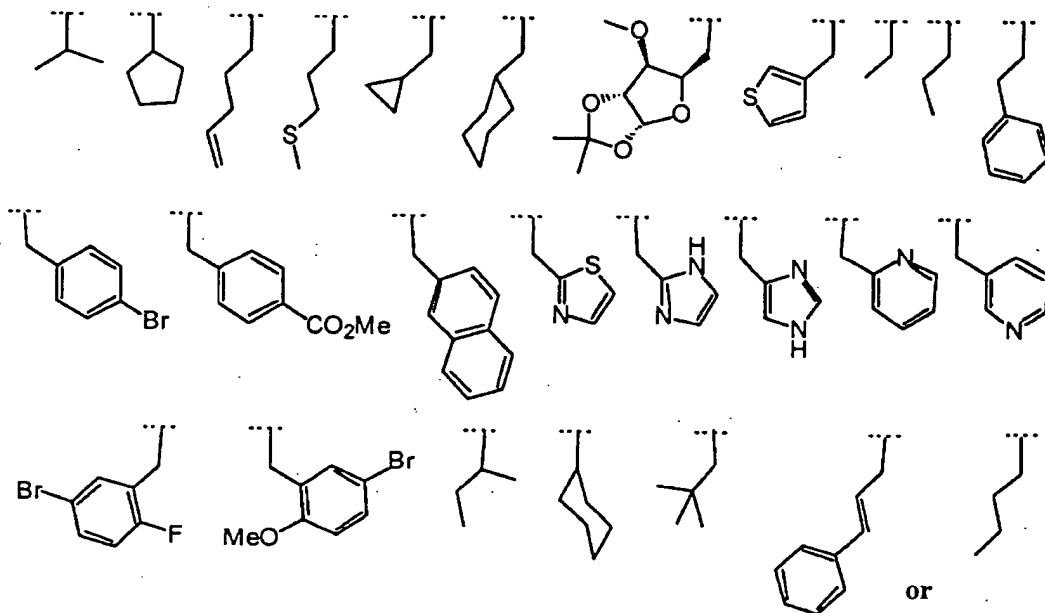
R^{17} is hydrogen or methyl.

- 5 17. The compound as in claim 16 of the structure



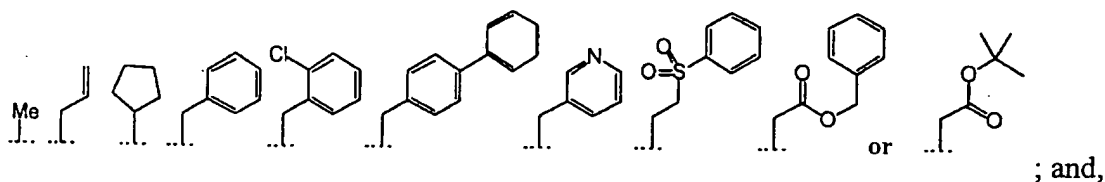
wherein

R^3 is

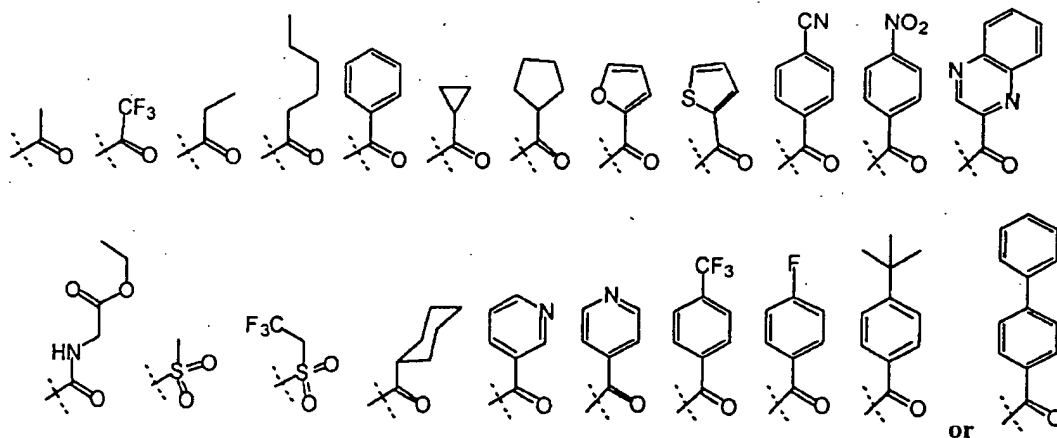


- 10 R^7 is propyl or 2-fluoroethyl;

R^{13} is

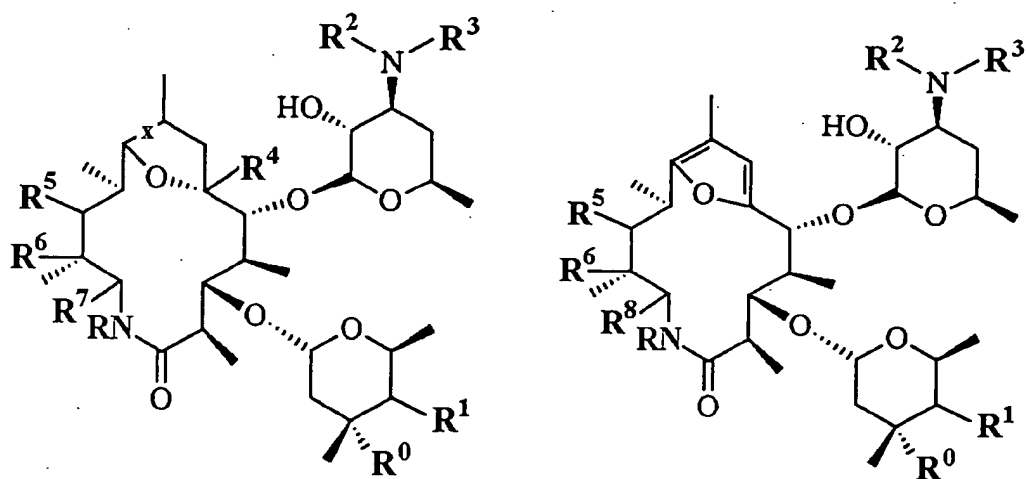


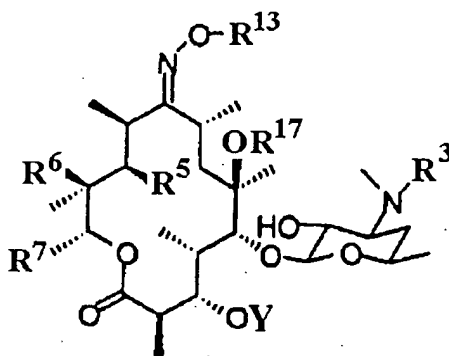
R^{18} is



5

18. A method of treating a subject suffering from impaired GI motility comprising:
administering a composition comprising a compound of the formula





or

wherein:

R is hydrogen, substituted C₁-C₁₀ alkyl, unsubstituted C₁-C₁₀ alkyl, substituted C₂-C₁₀ alkenyl, unsubstituted C₂-C₁₀ alkenyl, substituted C₂-C₁₀ alkynyl, unsubstituted C₂-C₁₀ alkynyl, substituted aryl, unsubstituted aryl, substituted alkylaryl, unsubstituted alkylaryl, substituted alkenylaryl, unsubstituted alkenylaryl, substituted alkynylaryl, or unsubstituted alkynylaryl;

R⁰ is hydroxyl or methoxy;

R¹ is selected from the group consisting of hydrogen, hydroxyl, halide, NH₂, OR⁹,

10 OCR^9 , $\text{OCNR}^{10}\text{R}^{11}$, NCR^9 , and $\text{NCNR}^{10}\text{R}^{11}$ where R⁹ is substituted C₁-C₁₀ alkyl, unsubstituted C₁-C₁₀ alkyl, substituted C₂-C₁₀ alkenyl, unsubstituted C₂-C₁₀ alkenyl, substituted C₂-C₁₀ alkynyl, unsubstituted C₂-C₁₀ alkynyl, substituted aryl, unsubstituted aryl, substituted alkylaryl, unsubstituted alkylaryl, substituted alkenylaryl, unsubstituted alkenylaryl, substituted alkynylaryl, or unsubstituted alkynylaryl, and R¹⁰ and R¹¹ are each

15 independently hydrogen, substituted C₁-C₁₀ alkyl, unsubstituted C₁-C₁₀ alkyl, substituted C₂-C₁₀ alkenyl, unsubstituted C₂-C₁₀ alkenyl, substituted C₂-C₁₀ alkynyl, unsubstituted C₂-C₁₀ alkynyl, substituted aryl, unsubstituted aryl, substituted alkylaryl, unsubstituted alkylaryl, substituted alkenylaryl, unsubstituted alkenylaryl, substituted alkynylaryl, or unsubstituted alkynylaryl;

20 R² and R³ are each independently selected from the group consisting of hydrogen, substituted C₁-C₁₀ alkyl, unsubstituted C₁-C₁₀ alkyl, substituted C₂-C₁₀ alkenyl, unsubstituted C₂-C₁₀ alkenyl, substituted C₂-C₁₀ alkynyl, unsubstituted C₂-C₁₀ alkynyl, substituted aryl,

unsubstituted aryl, substituted alkylaryl, unsubstituted alkylaryl, substituted alkenylaryl, unsubstituted alkenylaryl, substituted alkynylaryl, or unsubstituted alkynylaryl, or R^2 and R^3 together form a cycloalkyl or an aryl moiety;

R^4 is hydrogen or methyl;

5 R^5 is hydroxyl or oxo;

R^6 is hydrogen, hydroxyl, or OR^{12} where R^{12} is substituted C_1 - C_{10} alkyl, unsubstituted C_1 - C_{10} alkyl, substituted C_2 - C_{10} alkenyl, unsubstituted C_2 - C_{10} alkenyl, substituted C_2 - C_{10} alkynyl, or unsubstituted C_2 - C_{10} alkynyl;

10 R^7 is methyl, unsubstituted C_3 - C_{10} alkyl, substituted C_1 - C_{10} alkyl, substituted C_2 - C_{10} alkenyl, unsubstituted C_2 - C_{10} alkenyl, substituted C_2 - C_{10} alkynyl, unsubstituted C_2 - C_{10} alkynyl, substituted alkylaryl, unsubstituted alkylaryl, substituted alkenylaryl, unsubstituted alkenylaryl, substituted alkynylaryl, or unsubstituted alkynylaryl;

15 R^8 is unsubstituted C_1 - C_{10} alkyl, substituted C_1 - C_{10} alkyl, substituted C_2 - C_{10} alkenyl, unsubstituted C_2 - C_{10} alkenyl, substituted C_2 - C_{10} alkynyl, unsubstituted C_2 - C_{10} alkynyl, substituted alkylaryl, unsubstituted alkylaryl, substituted alkenylaryl, unsubstituted alkenylaryl, substituted alkynylaryl, or unsubstituted alkynylaryl;

20 R^{13} is hydrogen, unsubstituted C_1 - C_{10} alkyl, substituted C_1 - C_{10} alkyl, substituted C_2 - C_{10} alkenyl, unsubstituted C_2 - C_{10} alkenyl, substituted C_2 - C_{10} alkynyl, unsubstituted C_2 - C_{10} alkynyl, substituted alkylaryl, unsubstituted alkylaryl, substituted alkenylaryl, unsubstituted alkenylaryl, substituted alkynylaryl, or unsubstituted alkynylaryl;

R^{17} is hydrogen or methyl;

x is a single or a double bond; and,

25 Y is hydrogen, substituted C_1 - C_{10} alkyl, unsubstituted C_1 - C_{10} alkyl, substituted C_2 - C_{10} alkenyl, unsubstituted C_2 - C_{10} alkenyl, substituted C_2 - C_{10} alkynyl, unsubstituted C_2 - C_{10} alkynyl, substituted aryl, unsubstituted aryl, substituted alkylaryl, unsubstituted alkylaryl, substituted alkenylaryl, unsubstituted alkenylaryl, substituted alkynylaryl, unsubstituted alkynylaryl, unsubstituted cladinose, or substituted cladinose.

19. The method as in claim 18 wherein the subject is a human suffering from gastroparesis, gastroesophageal reflux disease, anorexia, gall bladder stasis, postoperative paralytic ileus, scleroderma, intestinal pseudoobstruction, gastritis, emesis, and chronic constipation (colonic inertia).